ABSTRACT

In a method of recording and reproduction using a magnetic storage medium, a magnetic storage medium (5) is used in which at least magnetic recording film (2) and a superconducting film (3) are deposited. According to the method,

the superconducting layer (3) is partly heated where data is either recorded in recording or reproduced in reproduction, using a semiconductor laser (6) to or beyond its critical temperature at which diamagnetism disappears. Thus, in recording, data can be recorded with high density without affecting adjacent parts of the magnetic recording layer regardless of the physical size of the magnetic head. In reproduction, data can be reproduced from a minuscule part at high S/N ratios with crosstalk from adjacent bits being substantially eliminated.